No. 630

LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

WRITTEN QUESTION

Mr Maley to the Minister for Essential Services:

Power and Water Corporation – Water Bores

1. How many water bores in the rural area are currently used by Power and Water Corporation (PWC)? The rural area can be defined, **but not limited to,** the following areas: Howard Springs, Girraween, McMinns Lagoon, Herbert, Howard River, Gunn Point, Berry Springs, Acacia Hills.

2. Please provide a map identifying where each water bore is located and the size of each water bore.

3. Please provide a plan of all water pipes connecting each water bore in the rural area.

4. Can you provide information or a plan as to which water bores are connected to each other via water pipes?

5. What is the total amount of water taken by each water bore over the last 6 months?

6. What is the total amount of water taken from each water bore each year over the last five years?

7. What is the total allowable amount of water taken by each water bore each year over the last five years?

8. What is the purpose of the water taken from the water bores?

9. Does PWC reduce the amount of water taken from each water bore as the aquifer water levels drop during the dry season?

10. Does PWC do any monitoring of the water levels in the rural aquifers, and if so, what is the result of the monitoring each year over the last 5 years?

11. Does PWC have a plan to reduce the amount of water taken from rural aquifers via the water bores?

12. Is there any reason why the amount of water taken from each water bore cannot be reduced during the dry season, especially towards the end of the dry season?

13. Once Manton Dam comes on line, is there any plan to reduce the amount of water taken from each water bore?

Answers

1. Power and Water operates 10 production bores as part of its Darwin region water supply system.

2. Attachment A refers. The pumping capacity (i.e. size) of each bore is as follows:

Bore Number	Recommended Pump Rate (L/s)
RN006310	70
RN006231	35
RN007048	60
RN007071	60
RN20496	45
RN20497	30
RN20804	30
RN26763	45
RN21398	45
RN20735	45

3. Attachment B refers.

4. Attachment B refers.

5. Total volume taken from each production bore over the last six months is as follows:

Bore Number	Production - July to December 2023 (ML)
RN020496	198
RN020497	322
RN020804	212
RN026763	521
RN021398	471
RN020735	545
RN006310	453
RN006231	7
RN007048	0
RN007071	371

6. Total volume taken from each production bore over the last five financial years is as follows:

Bore Number	Groundwater supply (ML)				
	2018/19	2019/20	2020/21	2021/22	2022/23
RN020496	697	83	285	251	443
RN020497	49	0	10	78	0
RN020804	454	0	0	0	97
RN026763	521	97	0	0	118
RN021398	978	805	744	785	557
RN020735	732	851	1008	796	518
RN006310	1045	313	2	2	197
RN006231	1	0	882	748	0
RN007048	868	727	0	0	46
RN007071	359	16	1353	105	282
Total	**5704**	**2891**	**4283**	**2765**	**2258**

7. Power and Water is licenced to extract 8420 ML/yr. This licenced allocation has not changed since 2001. There is no specific licence allocation for individual bores.

   The Department of Environment, Parks and Water Security (DEPWS) is the agency responsible for management of water resources in the Northern Territory. DEPWS reports that the total modelled extraction from the Darwin rural area, which includes horticultural and stock and domestic take, is approximately 45,000 ML.

8. Power and Water supplies drinking water to more than 13,000 residents in the rural area and 135,000 residents in the entire Darwin region. Water is predominantly sourced from the Darwin River Dam, with supplementary supply from the McMinns and Howard East borefields.

   The groundwater supply from the McMinns and Howard East Borefields is a critical component of the Darwin region water supply system. The groundwater is essential to:

   - contribute to total system yield - this ‘system yield’ combines available surface water supply (from Darwin River Dam) and groundwater supply (from McMinns and Howard East borefields) to meet a targeted level of service for water source security in the Darwin region
   - provide for diversity of supply
   - provide an emergency supply capability in case supply from Darwin River Dam is interrupted

9. Supply of water from the borefields is important throughout the year as both Darwin River Dam and the groundwater supply are required to operate to sustainably meet Darwin's water demand.

   The 10 bores however are not operated at the same time. The operational philosophy used to control the supply of water from individual bores is informed by system demand, planned and unplanned maintenance activities, operational efficiencies and water quality management.

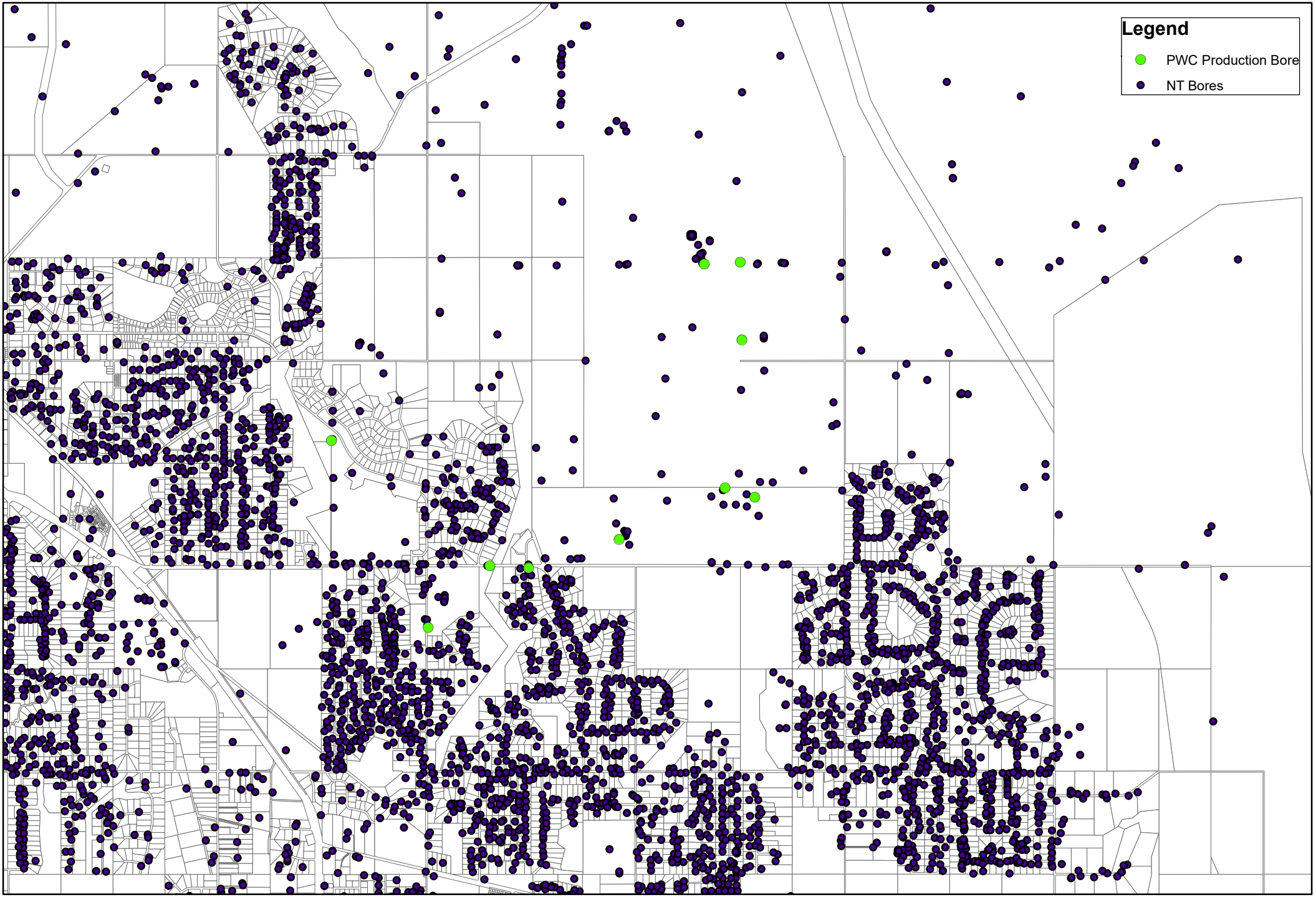
10. Power and Water monitors water levels in its production bores to inform its operations. DEPWS maintains a publicly accessible website for the community to track groundwater levels in the Darwin rural area
    https://waterresources.nt.gov.au/groundwaterwatch/

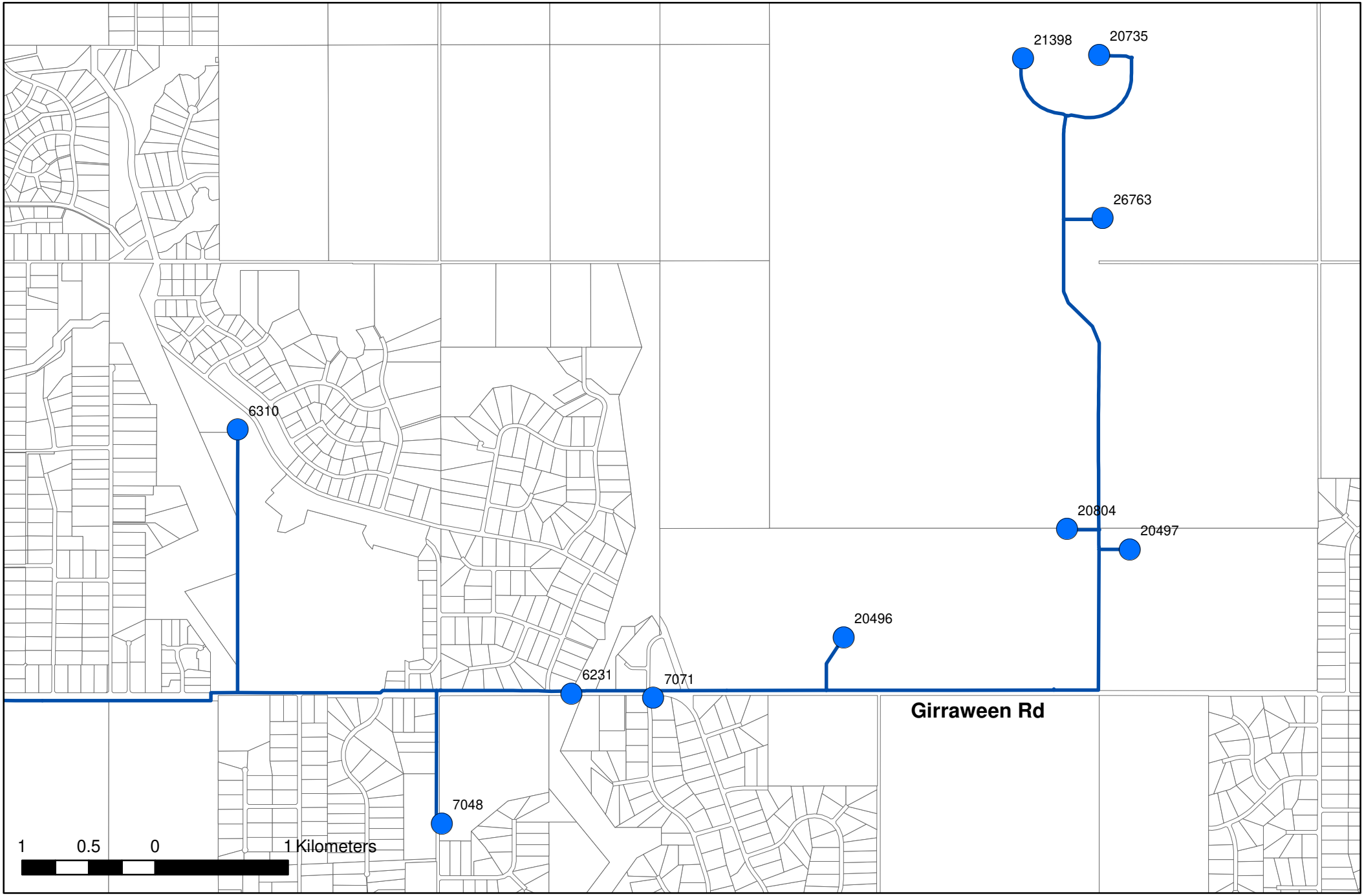
11. The groundwater supply from McMinns and Howard East Borefields is a critical component of the Darwin region water supply system now and into the future, and there are no plans to reduce Power and Water's licenced extraction, which has not changed since 2001.

    Queries on the sustainability of the groundwater resource should be directed to DEPWS. Some useful pages from the DEPWS website are provided below.
    Darwin rural water regulation strategy - one page summary (nt.gov.au)
    Water Regulatory Reform 2023 (nt.gov.au)
    Changes to water rules | NT.GOV.AU
    Groundwater in Darwin rural area | NT.GOV.AU

12. Supply of water from the borefields is important throughout the year as both Darwin River Dam and the groundwater supply are required to operate to sustainably meet Darwin's water demand.

13. The return to service of Manton Dam, a key component of the Darwin Region Water Supply Infrastructure Program, aims to support demand growth in the region and diversify water sources for improved water security. Supply from groundwater will remain as an important contribution towards 'system yield' and to provide for diversity of supply.


Legend
PWC Production Bore
NT Bores



Power and Water groundwater supply - network layout